

What is claimed is:

1. A method for encoding information, for transmission of the encoded information to a device that can display the encoded information as visible alphanumeric characters,
5 comprising the steps of:

converting an n-digit information into a binary format;
separating the binary format into x bit binary words, where x is the same as a
maximum number of bits data required by every data character in a pre-determined
10 data character map;
converting the x bit binary words into a sequence of characters using the data
character map;
inserting special marker characters into the sequence that demarcate the sequence into
sets of characters separated by one or more special marker characters;
15 inserting one or more special marker characters at the beginning and end of the
sequence; and
inserting line feed command characters into the sequence prior to transmission.
2. The method of claim 1, wherein,
20 x is four or five.
3. The method of claim 1, wherein:

25 the data character map excludes one or more alphanumeric characters because of the
potential for confusion at a visual level with another character.
4. The method of claim 1, wherein:

30 the special marker character is the symbol =.
5. The method of claim 1, wherein:

the line feed command characters divide the sequence into portions that are visually displayable when received by a user's device, as two or more lines of equal length.

6. The method of claim 5, wherein:

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each line initiates and terminates with one or more special marker characters.

7. The method of claim 5, wherein:

10 each line is subdivided by one or more special marker characters.

8. A scanner for reading a visible code and capturing data from a captured image, comprising:

15 an image capture device;

an OCR engine that has an image from the image capture device as an input and has as an output, a guess of characters and a location for each character from a geometric display of characters;

20 software for recognising a rectangular target area from the presence of special marker characters in the output;

a module for subdividing the target area into sets of a pre-determined size and location to create an expected character location values;

software for combining the guess of a characters and character location from the OCR engine with the expected character location values to arrive at best guess;

25 software for converting the best guess into a binary; and

one or more modules for applying data correction or recovery techniques to the binary for the purpose of arriving at the data.

9. The scanner of claim, 8 further comprising:

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a diffuse lighting source that minimises highlights in the captured image.

10. The scanner of claim, 8 further comprising:

software for de-skewing the captured image.

11. The scanner of claim, 8 further comprising:

5 a printer for providing a printed version of the data.

12. The scanner of claim, 8 further comprising:

an auxiliary display on which the data can be displayed.

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13. The scanner of claim, 12 wherein:

the auxiliary display can be physically separated from but functionally connected to the scanner.

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14. A method for decoding visible characters into original information data, comprising the steps of:

capturing an image of a user's display;

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using an OCR engine on the image, the engine having as an output, a guess of characters and a location for each character;

recognising a target area from the presence of special marker characters in the output;

deriving a character string from characters within the target area;

converting the character string into a binary; and

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applying data correction or recovery techniques to the best guess for the purpose of arriving at the data.

15. The method of claim 14, further comprising the steps of:

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subdividing the target area into sets of a pre-determined size and location to create pre-determined character location values;

combining the guess of a characters and character location from the OCR engine with the pre-determined character location values to arrive at best guess of a character string.

16. The method of claim 14, wherein:

the character string is an alphanumeric character string.

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17. The method of claim 14, wherein:

deriving the character string further comprises comparing the guess of a characters
and character location from the OCR engine with a map of expected character
10 location values to arrive at best guess.

18. The method of claim 14, further comprising the step of:

mapping the decoded original information data to produce a data having a size that is
15 larger than the decoded original information data.

19. The method of claim 14, further comprising the step of:

not decoding characters that are part of a transmission but that are outside of the target
20 area.

20. The method of claim 14, wherein:

the target area is pre-defined as rectangular, being comprised of two or more equal
25 lines of characters and being bounded by special marker characters.